

DETAILED ACTION

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28-29, 31-32, 34, 38-39, 41-42, 44-46, 48-49, 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US Publication Number 20030206509) in view of Van Woudenberg (US Patent Number 7215634).

In regards to claims 28 and 45, Lee et al discloses an optical recording medium and method in which write-once or rewrite operation of data can be performed with block including a group of data being as unit, wherein the buffer areas having a fixed length (Paragraph [0035]) for random access are respectively disposed before and after perspective blocks (Paragraph [0038]). However, Lee et al does not disclose an optical recording medium and method whereby when new block is recorded a start point for a buffer area before the new block is not fixed relative to an existing block preceding the new block and the new block is recorded in the state where the buffer area provided

with respect to the block and the buffer area provided with respect to existing block adjacent to the new block overlap with each other.

In the same field of endeavor, Van Woudenberg discloses an optical recording medium and method whereby when new block is recorded a start point for a buffer area (Fig. 7) before the new block is not fixed relative to an existing block preceding the new block (Column 9, lines 25-32) and the new block is recorded in the state where the buffer area provided with respect to the block and the buffer area provided with respect to existing block adjacent to the new block overlap with each other (Fig. 7). At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the recording medium to have a fixed buffer as suggested by Lee et al to have a variable start point of a new block as suggested by Van Woudenberg. The motivation for doing so would have been to increase cyclability, i.e., the maximum number of direct-overwrite cycles (Column 9, lines 47-50).

In regards to claims 29 and 46, Lee discloses a fixed length buffer area (Paragraph [0035]). However, Lee does not but Van Woudenberg discloses the optical recording medium and method, wherein recording unit block is constituted by block (data) and the buffer areas (PrA and G1) before and after the block (Fig. 7), and guard area (G1 or G2) or areas is or are provided at the rear portion of one recording unit block or at the rearmost portion of successive plural recording unit blocks (Fig. 7). The motivation is the same as claim 28 above.

In regards to claims 31, 41 and 48, Lee discloses a fixed length buffer area (Paragraph [0035]). However, Lee does not but Van Woudenberg discloses the optical recording medium, apparatus and method, wherein the buffer area or areas disposed immediately before or immediately after block (Fig. 3), or immediately before and immediately after block includes or include guard area (G1 and G2) for overlap at the time of recording (Fig. 7), and signal pattern for automatic adjustment according to power of light source is recorded within the guard area (Fig. 6). The motivation is the same as claim 28 above.

In regards to claims 32, 42, and 49, Lee discloses a fixed length buffer area (Paragraph [0035]). However, Lee does not but Van Woudenberg discloses the optical recording medium, apparatus and method, wherein the buffer area disposed immediately before block includes guard area for overlap at the time of recording (Fig. 7, Column 9, lines 25-32), and preamble for signal processing (Fig. 7, PrA), and plural synchronization patterns (Column 2, lines 42-46) having distances and identification information which are different from each other are recorded at the preamble (It is inherent that the preamble contains identification information). The motivation is the same as claim 28 above.

In regards to claims 34, 44, and 51, Lee discloses a fixed length buffer area (Paragraph [0035]). However, Lee does not but Van Woudenberg discloses the optical recording medium, apparatus and method, wherein the buffer area disposed

immediately after block includes postamble for time adjustment of signal processing (PoA), and guard area for adjustment of recording end position (G2), and signal pattern for detecting reproduction end of the block is recorded at the postamble (Fig. 7). The motivation is the same as claim 28 above.

In regards to claim 38, Lee discloses a fixed length buffer area (Paragraph [0035]). However, Lee does not but Van Woudenberg discloses an information processing apparatus (Fig. 1) adapted for performing recording or reproduction of information with respect to an optical recording medium in which write-once or rewrite operation of data can be performed with block including a group of data being as unit (Fig. 7), the information processing apparatus including data recording means for generating recording channel data in which buffer areas for random access are added before and after respective blocks to record the data onto an optical recording medium (Fig. 1 element 36), wherein when recording of new block is started with respect to a first block and a second block which have been already recorded (Column 9, lines 47-52), the block is recorded in the state where the buffer area disposed immediately before the block and the buffer area disposed immediately after the first block adjacent to the block overlap with each other (Fig. 7), and when recording of block is completed, the block is recorded in the state where the buffer area disposed immediately after the block and the buffer area disposed immediately before the second block adjacent to the block overlap with each other (Column 7, lines 25-32) . The motivation is the same as

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claim 28 above.

In regards to claim 39, Lee discloses a fixed length buffer area (Paragraph [0035]). However, Lee does not but Van Woudenberg discloses the information processing apparatus as set forth in claim 11, wherein recording and reproduction are performed with recording unit block including block the buffer areas (PrA and G2 or PoA and G1) before and after the block being as processing unit (Fig. 7), and guard area or areas is or are provided at the rear portion of one recording unit block (Fig. 7), or at the rearmost portion of successive plural recording unit blocks at the time of recording of recording channel data (Fig. 6). The motivation is the same as claim 28 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30, 33, 35-37, 40, 43, 47, 50, and 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Woudenberg '634 in view of Lee as claimed in claim 1 above and further in view of Van Woudenberg et al (US Patent number 6724707).

In regards to claims 30, 40 and 47, Lee discloses the optical recording medium, apparatus and method, wherein the fixed buffer area disposed immediately before block includes guard area (Fig. 2B, G1 or G2) for overlap at the time of recording (Fig. 3B). However, Lee and '634 does not discloses preamble for signal processing, and signal patterns for frequency pull-in of Phase Locked Loop (PLL) at the time of data reproduction and Auto Gain Control (AGC) are recorded at the guard area or the preamble.

In the same field of endeavor, Van Woudenberg et al discloses preamble for signal processing (Fig. 2, header area), and signal patterns for frequency pull-in of Phase Locked Loop (PLL) at the time of data reproduction and Auto Gain Control (AGC) are recorded at the guard area or the preamble (Column 6, lines 42-54). At the time of the invention it would be obvious to a person of ordinary skill in the art to modify Lee and '634 optical recording medium to reproduce a signal patterns for frequency pull-in Phase Locked Loop and Auto Gain Control of Van Woudenberg et al. The motivation for doing so would have been to provide a medium which comprises a synchronization pattern to ensure optimized of an automatic gain control (Column 2, lines 43-47).

In regards to claims 33, 43 and 50, Lee discloses a fixed buffer area (Paragraph [0035]). However, Lee does not but '634 discloses the optical recording medium, apparatus and method, wherein the buffer area disposed immediately after block includes postamble for time adjustment of signal processing, and guard area for adjustment of recording end position (Fig. 7). However, Lee and '634 does not but Van

Woudenberg et al discloses a signal pattern for Phase Locked Loop (PLL) according to reproduction clock is recorded at the postamble (Column 7, lines 31-43). The motivation is as same as above.

In regards to claims 35, 36, 37, 52, 53 and 54, Lee and '634 does not but Van Woudenberg et al discloses the optical recording medium and method, wherein the signal pattern is repetitive pattern of 3T/3T/2T/2T/5T/5T (Column 5, lines 30-33). At the time of the invention it would have been obvious to a person of ordinary skill in the art to include '634 optical recording medium with a signal pattern of 3T/3T/2T/2T/5T/5T of Van Woudenberg et al. The motivation for doing so would have been to ensure an optimized setting of AGC amplifier (Column 2, lines 44-47).

Response to Arguments

Applicant's arguments, see page 3, filed 6/17/08 respect to the rejection(s) of claim(s) 28 under Van Woudenberg et al '634 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Lee et al in view of '634.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH T. NGUYEN whose telephone number is (571)272-5513. The examiner can normally be reached on 10:00am-7:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN

June 26, 2008

/Wayne Young/

Supervisory Patent Examiner, Art Unit 2627